THE VETERINARY RECORD

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Diseases of Animals.

The quarterly issue of *The Journal of the Board of Agriculture* contains statistical tables of the prevalence of scheduled diseases up to June 30th last. The figures enable us to compare this year with the previous one, and the result is significant :—

Disease.	1998.	1897.
Swine-fever (outbreaks)	1457	1485.
Glanders (attacks)	718	734.
Rabies (attacks)	14	90.
Pleuro-pneumonia (outbreaks)	0	5.

These statistics show that pleuro-pneumonia has been successfully stamped out; that rabies has been largely suppressed; that swine fever remains where it was a year ago; that glanders prevails to about the same extent that it did ten years since. Every person who understands these diseases and who is practically acquainted with the regulations in force can see at a glance why two diseases are successfully met, and why failure attends the attempt to control the other two. The Animals Diseases Act is an illustration of the truth of the old adage that "if a thing is worth doing at all, it is worth doing well." The regulations applied to pleuro-pneumonia and rabies are done well, the regulations against glanders and swine fever are only half done.

There is no doubt the Board of Agriculture desire success to attend their efforts, then why is half their work a failure? Why do they not make the regulations for suppressing swine fever and glanders as effective as those for stamping out rabies and pleuro-pneumonia? We confess our inability to answer; but we are certain there is no veterinary surgeon who does not know what additional regulations are requisite to render the extermination of glanders and swine fever as certain a success as that which has attended the Board's struggle with rabies and pleuro-pneumonia.

In the case of glanders all that is wanting is a clause dealing with those horses which are infected but which have not developed symptoms—in other words, regulations for the "in-contact" animals. This with *compulsory* slaughter of diseased animals and fair compensation would stamp out glanders in a very short time.

In the case of swine fever the weak points are failure to stop movement in large infected areas, and delay in slaughtering detected outbreaks.

In February last the President of the Board told a deputation from Glasgow that he was not satisfied that mallein was trustworthy, but that his department were making experiments to test it. Every man with knowledge of mallein, outside of the Board, has been quite satisfied of its value for some years, but still the Board of Agriculture remains unconvinced. Such an attitude is at any rate not modest.

The Board's attitude towards swine fever is altogether hopeless. If four years of failure and an annual waste of £140,000 of public money has no educational effect, it is hard to say what would. Before the Swine-fever Act was drawn the Board took the evidence of all the experts they could find, and no point was more thoroughly insisted on by their own professional advisers and other outside authorities than the necessity of stopping movement of swine over large areas. This advice has been studiously avoided under fear of the excitement that would be certain to follow its adoption. But the agitation and friction could never be greater than that provoked by the Muzzling Order. The Board has bravely faced the dog owners and success has followed. If the Board would face the pig owners and do the right thing success would attend their efforts—and success would soon stop the blatant cries of the self-interested.

The Triumphs of Science.

Some letters in our correspondence column suggest that science has supplied agents and methods which are capable of doing serious harm. Surgery long ago made it easy for a man to purchase a horse suffering from an incurable lameness—disguised by neurotomy. Many a horse has been bought apparently sound in his wind but found next day to be broken-winded. He had been "set." Art has produced artificial eyes for horses and false teeth for dogs—both are desirable, but not when discovered for the first time shortly after paying for your last new purchase. From Germany we hear of new cures for shoulder lameness by hypodermic injections of atropine. It they only enable a man to sell his patient sound they are a fraud, if they cure fracture of the first rib they are a mystery. In England, we understand, tricky or vicious horses may be temporarily quietened for the show-ring or the racecourse. Dogs whose ears and feet are not as fanciers desire can be twisted, bent, and improved to taste.

It is possible to buy a cow or a bitch for breeding purposes and to find it has been spayed. With the assistance of tuberculin a cowkeeper may pick out all the diseased cows he possesses, before they show any outward indication of disease, and sell them in the market. Thanks to mallein we may clear a stable of all latent cases of glanders and dispose of them to the ruin of a luckless purchaser.

Great are the possibilities of science and art when *properly* worked, great also is the difficulty of defining "properly."

CASES AND ARTICLES.

FISTULA OF THE SALIVARY DUCT.

By A. L. Farrant, M.R.C.V.S., East Grinstead.

The patient in this case was an exceedingly well bred, six year old, bay mare, standing 16 hands high, which had, according to the tale of the dealer who was offering her for sale to my client, merely got the side of her face caught on a nail in the wall at the forge while being shod. Two other veterinary practitioners as well as myself were called in to examine the mare for soundness, without any previous knowledge that other advice had already been had. Fortunately we all agreed as to the probable trouble in store if the animal was purchased, and strongly advocated for a few weeks trial, but all to

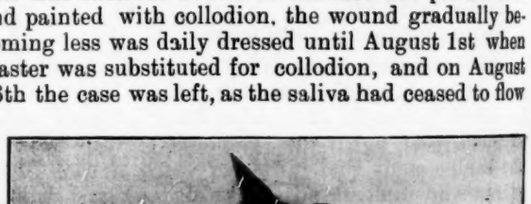
no purpose, as in spite of the opinions of the three veterinary surgeons, the client (a lady) purchased the mare, and had not been in possession of her very long before saliva was seen to be running from the small hole in the face, and gradually the wound became enlarged and the flow of saliva increased until I was called in to see the case on June 7th, 1895, when the face was as shown in the photograph.

Examination of the wound revealed Stenson's duct divided, the superior and inferior portions being a little over an inch apart, from the superior end when being fed the saliva flowed profusely and ran down the side of the lower jaw, which soon became denuded of hair; after having fed the flow of saliva was scarcely discernable, and upon more than one occasion entirely ceased.

It being impossible to get the ends of the duct in apposition after several trials, an attempt to substitute a small piece of carefully ground glass tubing was next tried, but did not act, as it became blocked and had to be removed after being in position about 30 hours.

A small metal plate placed in the wound, the skin drawn over with a draw purse suture as tight as possible and painted over with collodion; but the saliva could not be induced to flow through the lower portion of the duct into the mouth.

The wound externally showing signs of healing, it was decided on July 17th, 1895, to cast the mare and put a seton through the cheek, this was done every other day until July 24th when the opening on the inside of cheek appeared as likely to remain permanent. The external wound on the face was pin sutured and painted with collodion, the wound gradually becoming less was daily dressed until August 1st when plaster was substituted for collodion, and on August 16th the case was left, as the saliva had ceased to flow



on the external side of the face, and gave no further trouble until October 29th, 1895, when a slight external discharge again became evident. The small aperture was well syringed out with a solution of zinci. chlor. and plastered over daily until November 6th, 1895, since which time I have never had occasion to attend the mare professionally, although working almost daily ever since, carrying a lady. The appearance of the face can be judged from the second photograph which was taken on September 8th, 1898, over three years after the first picture. During the whole period of five months extending from June 7th to November 6th, 1895, whilst under treatment, the mare never once lost her appetite, and her general condition was excellent all the time.

CHINOSOL IN ABDOMINAL SURGERY.

By Edward R. Edwards, M.R.C.V.S.
Barton-under-Needwood.

In *The Veterinary Record* for March 6th, 1897, I drew attention to the great value of chinosol as a general antiseptic, but until recently I have had no experience of its suitability for use in abdominal surgery. However, its *non-irritatiag* properties, even on the peritoneal cavity of the horse, have been forcibly impressed on me by a case (notes of which I subjoin) under my care during the last summer.

On June 6th I received an urgent request to visit a three-year-old shire gelding which had become impaled on a stake in attempting to jump an old fence bounding a farm yard. The offending stake was dirty beyond description, very old and rough, covered with fæces from cows, and the accumulation of the farmyard filth of years.

On my arrival at the place, I found my patient lying down in a wretchedly paved and badly drained stable in which pools of stagnant, decomposing urine were numerous. The external wound in the loose skin of the flank was about four inches in diameter; it was very dirty, and from it there was protruded a knuckle, or loop, of bowel which was also in a filthy condition. From these details it will be gathered that the outlook was not very promising, owing to the probability of septic peritonitis.

I had the horse led into a field and after putting a large bandage of table cloths, etc., tightly around the abdomen, with a pad over the wound, I cast him carefully with hobbles. The bandage was then removed, and the protruded bowel and wound were well and thoroughly cleansed with a *strong* solution of chinosol (1 in 600). I washed my hands, etc., in a similar solution and then passed my right hand and arm into the wound. I found about a pailful of bowel between the skin and muscles, and—at a point about half way between the stifle and the angle of the ilium (i.e., considerably above the level of the external wound)—a large lacerated opening through the muscles into the abomen.

The bowel was returned to the abdominal cavity without any great difficulty, but owing to the badly lacerated condition of the muscles, it was impossible to suture the *muscular* wound. The superficial skin wound was sutured with wire, the pad (soaked in chinosol solution) and bandage around the body re-adjusted, and the animal then allowed to rise.

Throughout my manipulations whilst returning the bowel to the abdomen, during the suturing, and subsequently, the antiseptic used was a solution of chinosol (1 in 600).

To my surprise and delight the animal made an uninterrupted recovery, and the sutures were removed on June 23rd, when the patient was discharged cured. There was a little œdematous swelling along the floor of the abdomen for a week after the accident, but this was not sufficiently marked to call for any special treatment, and was speedily absorbed.

In this case the severe nature of the injury, the filthy condition of the wound when first seen, and the general circumstances were all indications pointing to an unfavourable termination; but, in spite of this, good results were obtained, and I attribute the recovery from what looked like being a fatal injury to the free and liberal use of chinosol, thus proving its suitability for use in abdominal surgery.

I may add that when discharged on June 23rd, there was no hernia, but—as a measure of caution—I advised the owner that a long rest was advisable. However, owing to pressure of work, the horse was used forthwith, with the result that when I saw him on the 10th inst., I noticed that a hernia about the size of a child's head had appeared in the flank. This hernia is easily reducable on the application of gentle pressure, but it reappears directly the pressure is removed.

FORMALIN—A NOTE ON.

By J. Dowling Allman, A.P.S. Lond., Ealing.

This substance *formalin* or *formal* is prepared by a 40 per cent. solution of the gas *formal aldehyd* (HCOH) in water. It is also known under the appellation of *formic aldehyd*. It is a colourless liquid with a pungent odour.

Therapy. It has been employed in surgery as a general antiseptic agent, and is considered as effective as corrosive sublimate, and is recommended as a sterilizer for surgical dressings with the advantage that it does not affect the colour or the texture of the various materials. For the purpose of disinfecting hospital wards infested with contagious maladies it is employed by heating the solution. For general surgical antiseptic purposes a 1 in 40 solution is used. The drug is also commended in the treatment of excrescences of the skin and mucous membranes, as it causes necrosis of the tissues without producing suppuration. As a preservative it is largely employed to preserve milk, meat, jams, and a strong solution is recommended as a preservative for pathological and histological specimens. It is highly recommended as a general disinfectant for invalid and domestic purposes, assuring perfect antisepsis, and by its freedom from odour, and being non-poisonous it is well adapted for disinfecting chambers and utensils used in the sick room.

ABSTRACTS FROM FOREIGN JOURNALS.

On the Danger of Ingestion of Tubercular Meat.

Professor Thomassen, of Utrecht, related that Nocard and other authorities had proved that meat derived from tubercular animals only exceptionally contained the bacillus of Koch, even when the lesions were generalised. However this meat was liable to be dangerous because the lymphatic glands lodged in the centre of masses of muscles sometimes concealed caseous lesions. With a view to determine the gravity of the danger from the consumption of these meats Professor Thomassen caused very young pigs, which are very receptive animals, to eat raw meat derived

from animals affected with generalised tuberculosis. This dietary was prolonged for two to five months, the pigs having having ingested the total quantity of tubercular meat varying from 3 kilogrammes ·250, to 15 kilogrammes. During the course of several series of experiments, each carried out upon a certain number of subjects, Thomassen only obtained *positive results three times*, and these animals had received infected meat mingled with splinters of bone.

Considering that man generally ingests only cooked meat we may conclude that the danger resulting from the consumption of flesh of tubercular animals is comparatively negligeable.

M. Nocard remarked that it was only in the case where the osseous splinters were mixed with tubercular meat that Thomassen obtained positive results. Not only does the osseous *débris* favour infection by wounding the intestinal mucous membrane, but it is known that the osseous medulla constitutes an excellent culture medium for the bacillus of Koch, which is often very abundant in this tissue in animals affected with generalised tuberculosis.—(*IVe Congrès pour l'étude de la Tuberculose.*)

Tuberculosis in the Ass.

In the name of M. Blanc (of Lyons) M. Nocard brought before the notice of the Congress the first scientifically controlled case of tuberculosis in the ass. MM. Nocard and Leclainche state in their *Traité des Maladies Microbiennes* that they do not know of an authentic observation of this disease.

We know, however, that since the experiments of M. Chauveau intravenous inoculation of tubercular products cause in the ass a veritable granulosis which disappears spontaneously; if we kill the animal more than a month after infection we do not find any lesion.

M. Nocard has never been successful in causing tuberculosis in the ass by inoculation; all modes of introduction of the virus have remained fruitless; sometimes the animal died in a few days, *poisoned by the tuberculin*, but without finding any of the constituted lesions on post-mortem examination.

In an old she ass destroyed for dissection purposes at the Lyons School, M. Blanc found the lungs filled with dense nodular tumours without having any central softening or peripheral induration, resembling very much a sarcomatous infiltration. A summary histological examination seemed to confirm this hypothesis. Sections of the pulmonary sarcomatous masses after having been immersed for some time in Ziehl's colouring material showed in the centre of the lesion a few scattered bacilli of Koch.

Inoculation of fragments of the tumours into the guinea-pig caused in this animal a characteristic tuberculosis. The lesions obtained were of the Villemin type; it was therefore a case of infection by the bacillus of tuberculosis of mammals and not the avian bacillus which causes, as has been proved by M. Nocard, the abdominal form of tuberculosis of the horse.

The ass may therefore become tubercular under the natural conditions of its existence. Having always failed to obtain tubercular infection of the ass by any mode of inoculation, M. Nocard sought to accomplish it by contagion from infected surroundings. In a shed which was used for the experiments on the contagiousness of tuberculosis by M. Moussu, M. Nocard kept for more than two years two she asses, permanently in contact with tubercular animals.

Every two months the she asses were tested with tuberculin, the result of these tests was always negative until the last trial (two years and four months after their entry into the contaminated shed) when the reaction became positive and characteristic in one of them. He concludes, therefore, that the ass is not refractory to tuberculosis—it is very resistant. Unhappily all attempts at treatment that M. Nocard has been able to make, either with the serum of the healthy ass or with the serum of subjects saturated with tuberculin, have been unsuccessful.—(*IVe Congrès pour l' étude de la Tuberculose*).

Verminous Pseudo-Tuberculosis in Small Ruminants.

Bacillary tuberculosis is very rare in small ruminants. It may be confounded, according to M. de Jong, of Leyden, with the pseudo-tuberculosis caused by the *strongylus rufescens*. Simple macroscopic examination of the lymphatic glands is insufficient to differentiate the two affections. In the case of verminous pseudo-tuberculosis the glands contain caseous and calcified foci. Diagnosis may be very difficult, and sometimes the employment of inoculations into the guinea-pig and rabbit are necessary.—(*IVe. Congrès pour l'étude de la Tuberculose.*)

H. G.

On Morphia Atropine Injections in Shoulder Lamenesses.—By Veterinary Surgeon Pflanz, of Canth.

Morphia atropine injections have been used by me in the three following cases, two of which were very characteristic:—

No. 1. One of my waggon horses was taken suddenly lame on the road in the off fore limb. The lameness was in a short time so severe that the horse was brought with great difficulty the last five kilometres to my house. Examination of the foot, pastern, knee, fetlock and elbow joints, etc., gave negative results. In progression the foot was trailed along, the animal evinced great pain when the limb was extended, weight was scarcely borne on the limb and I diagnosed shoulder lameness.

I had the animal put in the stable and rested half an hour. When he was brought out again after this time the lameness was so severe that the affected limb could only take half the length of step accomplished by the sound limb. I gave in the afternoon an injection of morphia and atropine in the region of the shoulder and had the horse warmly clothed.

On the next morning when the patient was led out all lameness had completely vanished. I gave the horse two further days rest and have used him since in all long journeys without the slightest trace of lameness again occurring.

No. 2. A horse suffering from canker of the frog in both hind feet was operated on by me. The operation took a long time in performing as the disease was far advanced in both feet and a great portion of the wall had to be removed. The operation was conducted with the animal narcotised. On releasing him from the hobbles complete radial paralysis of the near fore limb was evident. The horse placed weight on the limb for a time but knuckled over again in a few seconds. I had the animal put in a stall and placed him in slings. At first he appeared to get better so that I thought at first he was suffering from compression and cramp of the muscles. After about 2 hours the lameness was still present so that no weight could be borne on the limb.

In the following 6 or 7 days massage was ordered twice daily for half-an-hour without any result however, and injections of veratrine were equally ineffective. As the horse had also great pain on both hind limbs so that he could only stand upright with great difficulty, the changing of the foot dressings was a matter of great difficulty.

After 8 days no improvement in the lameness was evident. I gave subcutaneous injections of morphia and atropine.

On the next and following day the position was unchanged. When I came into the stable on the third day, however, I found to my delight that the lameness had completely disappeared. The animal now placed just as much weight on the near fore limb as the off, and when trotting showed no inability To this day no relapse has occurred.

No. 3 was a horse with inflammation of the sheaths of the tendons, but in this case, undertaken as an experiment, there was no good result. In none of the three cases were any of the neighbouring parts affected by the injections.

(Reports of the use of these hypodermic injections in shoulder lameness keep appearing monthly in the German journals and the great majority of the veterinary surgeons in that country speak favourably of them.—Trans.)

Milk Fever.

The following is the plan recommended by Neverman, of Bremervorde, for adoption in collecting reliable statistics of Schmidt's treatment of milk fever.

Statistics on potassium iodide treatment of miik fever collected by——.

Case.	How many days calved.	How long ill before treatment commenced.	Treatment, Pot. Iodide	Cured.	Slaughtered.	Died.	When has the cow got up?	Remarks. 1. Whether very ill. 2. Death and p. m. 3. Whether complications occurred.
No			Grammes				After	
1	3	24 hours	10	1	—	—	8 hours.	Fairly bad.
2	1	10 hours	10	1	—	—	12 hours.	Very ill, lying comatose.
3	2	4 hours	10	1	—	—	?	Commencing stage.

Reports of this treatment collected and sent in to you Mr. Editor, would be of value in this country.—(Trans.)

G. M.

VETERINARY SOCIETIES.

THE VETERINARY MEDICAL ASSOCIATION OF IRELAND.

A meeting of this Association was held on the evening of the 22nd August at the Gresham Hotel, Sackville Street, Dublin, to which a general invitation to members of the profession practising in Ireland was extended. A special invite was also accorded the distinguished veterinarians from across the channel who had attended the recent congress of the Royal Institute of Public Health as delegates from the various veterinary colleges and medical societies, and who were enabled to remain in Dublin for the meeting of the Association. T. D. Lambert, Esq., presided. Amongst the gentlemen present were: Professors McCall, Williams, Penberthy and Dewar; Messrs. W. Hunting, T. D. Lambert, Chas. Allen, Jno. Fieeman, R. B. Freeman, Jas. McKenny, E. C. Winter, J. H. Peard, Chris. Rea, M. Hedley, W. A. Bryne, F. C. Mason, J. A. Thompson, W. J. Richardson, W. B. Gardner, B. P. Mahony, F. F. Collins, R. Malone, R. H. Lambert, P. W. Creagh, J. Healy, M. Quinn, J. Watson, D. S. Prentice, P. Reilly, P. J. Howard, J. W. Nolns, J. Jones, McKenna, Cope, Woods, T. McGuinness and Chas. Steel.

The Chairman said he was pleased to see so many present from across the water. He need not tell them that their association was a very small one, but it did some good work and he would take this opportunity of inviting the National Association to come to Dublin, and he (the chairman) would promise them a hearty welcome by the practitioners of Ireland. As time was precious he would take the minutes of the last meeting as read, and would ask Mr. Hunting, as secretary of the National, to say a few words as to the objects and methods of the Association.

Mr. Hunting said that as secretary of the National Society he might mention that this year at Leeds and last year at Reading this subject was mentioned. Every member of the National was anxious to come to Ireland, but they did not like to leave England unless they were sure of a good attendance wherever they went. There was no use in their coming to Ireland unless they were sure of a good attendance. They had fixed Plymouth for next year, but for the year following he thought they only wanted an invitation to come to Ireland to induce them to attend in as large force as they did anywhere. The object of the National was simply the object of all other veterinary societies—the advancement of veterinary science and art and the good of our profession. They were not a local society. They travelled about and went wherever they thought they should have a good meeting, chiefly where they were invited. They had been at Leeds, Manchester, Glasgow, Edinburgh, Newcastle, and Yarmouth—all over England and Scotland excepting the Western Counties, and he was sure they would be delighted to be asked to Ireland. (App.)

Lieut.-Col. Steel said with regard to this matter he might say it was not their fault that the Society did not come to Ireland. Some years ago it was arranged that the Society should hold its next meeting here, and they made some arrangements, but they found that the promise could not be fulfilled. This year he went to England again and he heard some reasonable arguments against their accepting the invitation, the most plausible of which was that there were only six members of the National Association, including himself from Ireland. That was an argument he could not withstand, and his object in speaking now was to urge all members of the profession in Ireland to become members of the National Association and therefore qualify themselves to ask the

Association over. Mr. Hunting mentioned on one occasion a new society that had been started here, the Central, and he would take this opportunity of asking the members of that body to consider the advisability of amalgamating with this one and thereby making a better association.

Mr. WATSON (Boyle) said that as vice-president of the Central Veterinary Association he would be happy to put the matter before that body, and he trusted his colleagues would take into their serious consideration the question of amalgamation so that the profession in Ireland might show an united front.

Mr. W. A. BYRNE (Roscommon) said he would be most happy to help in any way in the direction which Mr. Watson proposed, for he thought it would be a most admirable thing if the two associations should join. (Hear, hear.)

The PRESIDENT then called upon Mr. W. Hunting to read his paper.

SOME THEORIES OF HORSE SHOEING.

By WM. HUNTING, F.R.C.V.S.

Mr. HUNTING remarked that the pre-scientific shoer of horses was probably free from any theories about the horse's foot and entirely innocent that the form and action of the limb required the slightest attention from him. He tried to fix an iron plate on the hoof so as to prevent the horn being worn through during the progression of the horse. He probably succeeded fairly well, but every now and then horses were lamed by his attempt to protect them. His most conspicuous failure would be with the nails, the injuries from which he would soon detect and attempt to remedy. Bruises to broken or flat feet by ill fitted shoes would next be recognised, and bruise to the sole near the toe or at the angle of the heel would soon be observed as special evils to be guarded against. As experience became greater, especially when it was more widely diffused and handed down to the next generation by written records, more obscure injuries would be detected and traced to their origin ; the effects of ill fitted shoes and ill proportioned feet would be credited to the real cause. It was strange that whilst the slow development of knowledge was taking place many diseases of the feet were located in quite other organs. Laminitis was for generations known only as "chest founder" and navicular disease was entirely unknown. Then came the fashion of charging nearly all obscure lameness to the foot, and then the pendulum swung back to find the cause of lameness in splints and fractures when often only the foot was at fault. The latter part of the 18th century saw the rise of veterinary schools, and the injuries and diseases of animals became a subject of study by scientfiic men. Almost without exception the writers of that time devoted a large share of attention to the horse's foot and shoeing. Quite a number of books on this subject were written about the year 1800—some earlier, some later. St. Bell, Moorcroft, Coleman, Bracy Clarke, Youatt, Blaine, White and Goodwin contributed largely to the literature of the subject. Among non-professional men Osmer Clarke, Laurence, and Strickland Freeman produced equally good and useful books on shoeing. These various authors naturally attempted to give reasons for their directions. They tried to show *why* certain methods were bad or good and *how* a number of partially recognised evils arise. All blamed shoeing for a great number of lamenesses and diseases—each had his own explanation to offer and his consequent practice to advise. All were wrong in some particular, but they supplied corrections to their contemporaries' errors and so progress was surely made. We were possibly in a somewhat similar position on the eve of 1900. We had adodted some of the teachings of 1800 ; we had rejected others ; we had added theories of our own and adopted practices to match. Possibly future generations would smile at our ignorance and wonder that facts patent to them would have been overlooked by the people of the present day. He was prepared to allow that, to some extent, what is is right. The mere fact of a practice having existed for a time was evidence that it had stood the test of experience and was probably an improvement on the practice that had preceeded it. The difficulty lay in valuing observation. In all human affairs there were so many possible sources of error that what they called every-day experience might be most misleading. They might do the right thing without knowing why, or they might form a correct theory and be totally wrong in applying it. They might do these things in blissful ignorance that they were guilty of error or were totally illogical. These observations were a sort of excuse for reviewing some theories in connection with horse shoeing. He had no very fixed ideas himself on some of the points he would notice, and he regretted that more definite and exact experiments had not been made to assist them. Some of the theories were still wanting in real support ; some, he thought, had been settled.

The expansion theory had filled a large space in horse-shoeing controversies. For quite a century the question was asked "does a horse's foot expand during progression when his weight is placed upon it, and contract when weight is removed?" Assertions and denial followed each other for years. Measurements were made by both sides and seemed to afford conviction to the minds of both that they were right. Tape and callipers were used, impressions of the feet were taken and yet different opinions were held. The fact was that the methods of measurement were defective, and that a difference of the conformation of the foot produced variations in its behaviour. Old authorities differed so much as to as to assert, one, that the foot contracted at the heels under weight, another, that it expanded, and others again, that it remained immovable. These were the opinions of Colman, Bracy Clarke, and Miles, and were all founded on theory, but important practices were based upon them. Clarke held that shoes should be nailed all on one side ; then they had the idea that if the shoes were nailed off from the toe the hoof would not expand, and again they had nails used for the toes for the object. Myles, a non-professional man, a man with a logical brain, concluded that the foot did expand and he contended that as the wall expanded the sole must sink. Upon that theory another practice was recommended. It was advised to pare the sole and the shoe would be supplemented by a leather in order to put back what was taken from the horse's hoof. Then by Lungwitz and Fred Smith they had the subject threshed out and to some extent settled. They saw by means of an electrical arrangement that the foot did expand—to about the extent of the thickness of a sheet of paper, and with that expansion the frog takes a bearing on the ground or there is no expansion.

Then they came to the theory of contraction, which, he thought, deserved a position in a discussion of this kind. In his time a man had an idea that contraction was an active condition taking place in the feet, not a passive one, and by this the farrier was misled, and for contraction opening of the heels was considered a remedy—one of the worst ever conceived. Then shoes were invented with an inward bearing which forced the foot open, and were also very bad. He took it that contraction was a bugbear. What was really seen was a shrinking of the horse's hoof, and not any contraction, arising purely from the state of the system. That was his own opinion ; he might be wrong, but he believed no foot would contract unless it was improperly treated.

Another theory was that a horse's heel — the back

part of the foot—descended; that there was not only a lateral motion of the foot but an up and down motion as well, and the ingenious suggestion was offered that if they shod a horse far back they would find a considerable difference. Naturally there would be, but nature had not provided for any such arrangement, and it was only when theory had interfered with the course of nature that they found the heel showing any motion. The presence of corns had by some been attributed to the up and down motion of the horse's foot and had led to the idea of shoes which would prevent corns. There was no theory which had not led to some curious inventions.

Then there was the theory that a horse's hoofs were strong enough to do without shoes at all. That was a great mistake. Want of shoes would be a great evil. A horse working on a rough road without shoes would do only about 1-10th of the amount of work which he would do when shod. Another idea was that unnailed shoes would do as well as nailed ones. Personally, he thought nails were a triumph of human ingenuity. Shoes with bands had been used; he had seen them used for about three months with the result that quite three-fourths of the wall of the foot was worn into a groove.

Then there was another theory, the theory of concussion, about which they did not hear so much as they did a few years ago. The question of hard roads was raised — apparently the objection was that nature had forgotten to provide any anti-concussion arrangement for the horse's hoofs. But they found that every provision was made in a horse's foot against concussion, and he doubted very much whether a horse working on hard roads suffered any more than if he was working on grass, so far as he suffered from direct jar or concussion. But there were other theories. Authors on horse-shoeing had been very fond of telling them that they must be as particular about the leg as the foot, and many books, especially American, gave them drawings of the front and fore legs and pointed out how faults in them could be remedied by horse-shoeing. He did not agree with this, and was very much inclined to doubt whether these remedies were not followed by worse diseases than those they attempted to cure.

Another matter he should refer to was the turning in and turning out of toes, and he would venture to say that in 99 cases out of 100 if a horse turned his toes in he turned his elbows out, *vice versa*, and there was no use trying to alter the fact. It was also a common every day practice for a farrier to try and remedy "cutting" by altering the shoes. How had that idea arisen? Had there been any experiments made on the subject? So far as he was aware nobody had ever tried what was the effect of altering one side and then the other of a horse's foot. About 100 years ago Moorcroft wrote a little pamphlet in which he detailed some experiments he made, and he said there was a difference, but he says in one case the impressions of the hind feet was wider apart and in the others they were close. He (the lecturer) would like to see those experiments repeated. There were probably many gentlemen in the room who would say they had daily experience of such cases, that they have had horses coming in that have cut themselves, and when the shoes were changed they went differently and that their clients agree with them. What was the explanation? The first time a horse cuts the owner says very little; if he cuts a second time he will send him back again, and if he cuts a third time the owner will lose his temper and send him to another man, and perhaps in the opinion of the owner the second man will cure the horse. What happens in a large establishment such as a tramway stable? When a young horse cuts—it was raised in condition. It was want of condition that caused cutting; shoeing had nothing whatever to do with it. The theory which says the farrier is to blame is untrue: the real reason is want of condition, or debility. Some time ago there was a shoe brought out called the "Goodenough" shoe, the difference between which and any other was that it had calkins, and he must say that the height of the heel had some effect.

In America with trotters they had many ways of getting horses to work. They used to use bags of shot, and afterwards they introduced pads of various kinds, all of which had a different effect. He did not like to say much, but he would say that all these sideways used by the Americans, with the exception that they made a horse lift its legs better, were absolute nonsense. "Professor" Russell, of America, said "You cannot have strained tendons, swelled joints, and irregular gaited horses if the feet are toned and balanced and the shoe properly adjusted to carry out the balance." And in another place he says "Upon examination it will be found that the fourteenth dorsal vertebra is the pivot or axis round which the weight is poised, being the centre of gravity. It is plain therefore that if the symmetry of the horse be affected either by disproportionate construction, by acquired faults, or by wrong shoeing, that his centre of gravity is disturbed—that is, he is unbalanced" And again, he says, "When, therefore, a horse is found with some fault the first and all important thing is to determine how he is unbalanced, and proceed to distribute equally around the centre of his gravitation the natural and acquired weights he must carry," and then he gives himself away with this curious observation "No general rule can be given for this!" Joseph Cairn Simpson, writing of "Tips and Toe-weights," in which there is much I should recommend you to avoid, says "The latest invention of compact metallic masses placed on the surface of the hoof have effected wonderful changes, and in so many instances that the advantages are beyond cavil. From these our fast trotters have been multiplied, and speed and steadiness result." He begs the question and gives the explanation. "I shall take the ground that the good results which follow the use of toe-weights are dependant, first, on mental influences, secondly, on mechanical effects. The former I hold to be by far the most potential of the two. It may be better, perhaps, to state that the effect of toe-weights is to fix a different habit of action in the mind, the intelligence of the pupil being called in requisition and this is supplemented by the mechanical laws which aid in the development." No doubt the Americans had got a good class of horses, but he didn't think that toe-weights had anything to do with it. Again, the Americans had another way of making horses lift their feet. This is accomplished by driving them in deep sand or in water a foot deep; the horse is taught his lesson and remembers it, but toe-weights decrease the pace of galloping horses. Simpson again says "The effect of unequal weight on his feet is to decrease pace, and has been used to mislead the public by conducting trials with a horse cross-shod. This manœuvre consists in putting heavy shoes on a fore and hind foot on opposite sides and light ones on the others." He wrote in an appendix to this two years later—"Now, after further study, observations, and the tests of many experiments, I am in doubt. While broken-gaited horses are generally amenable to the good effects of weights, in a few instances it has been found impossible to correct the faulty action by weights and then, perhaps, some other contrivance may work a cure. Again, there are two horses apparently identical in their gait; weight aids one of them, the other it makes worse. Twelve ounces may be required to accomplish in one, what four ounces may do in another, and so the paradoxes come into notice at every stride in his journey; and loth though we are to acknowledge the ignorance it is so palpable that it cannot be denied. Now, if it were a mere mechanical effort akin to the counterbalance of a wheel,

the weight would be an imperative necessity at all times. If even the effect were due to the position the weight bore to the extensors, as has been claimed, there it would have to stay. Weight is advantageous in the education of many trotters, but I am greatly in doubt of any benefit accruing after the schooling has progressed to a certain stage. Further than that, I have faith that the trotter of the future will be relieved from his incumbrance of heavy masses of metal on his feet, whether in the shape of shoes or weights, though the latter may always prove one of the main resources for the correction of wrong movements.* (Applause.)

Discussion.

Professor Williams, in opening the discussion, expressed the opinion that as regards expansion on the ground surface it was really non-existent. There might be some slight dilation of the lower part of the wall when the foot came to the ground, but he maintained that a lateral expansion of the whole foot was an impossibility. If the foot did expand the wings of the pedal bone would be fractured. On the other hand it could be easily seen that when the frog was brought to the ground the pressure caused it to expand laterally, in fact to swell out at the sides, and to admit this without damage there were three cleavages, namely, the cleft and the two commissures; the soft structures in the hollow of the heel were thus pressed upwards and outwards causing dilatation of the elastic lateral cartilages as could be seen particularly in clean legged cart horses. Then the lateral cartilages, in virtue of their elasticity, closed upon the soft structures when the weight was taken off the foot and pressing them to their original position. Ossification of the cartilages and destruction of this elasticity did not generally cause lameness, but it always tended to modify the elasticity or springiness of the horse's action. As to a horse cutting, he agreed with Mr. Hunting that it was generally, but not always, due to weakness and debility, and usually when the cause was removed the cutting disappeared.

Professor Penberthy expressed his pleasure at hearing Mr. Hunting's address and said he ever appreciated more highly his little book on the subject in which, as compared with many others, the art of horse shoeing was much simplified. In his (the speaker's) opinion most of the theorising referred to by Mr. Hunting was valueless. He believed that the main purpose to be served by placing a rim of iron on ground surface of the wall of the horse's hoof, was not to prevent or encourage expansion or contraction but to prevent undue wearing or chipping of the crust. Veterinarians were dearly fond of theories and new inventions; the essayist has referred to but a tithe of the more pronounced belief concerning expansion and contraction, or of the inventions for proving or disproving these. The Professor thought common observation afforded proof, in the soundness and perfectly free action of tens of thousands of horses shod in the ordinary way, whether there be contraction or expansion, sufficient for all practical purposes, and that the discussion of this theory was not likely to be fraught with much advantage. As to the modification of concussion, Mr. Hunting had almost exclusively referred to the effect of the solid portions of the hoof, he would like to ask Mr. Hunting whether he thought the wonderful vascularity of the sensitive portions of the foot and the easy displacement of the blood had any effect in lessening the concussion? As to the utter failure of any alteration in the shoeing in preventing "interfering" or "brushing," he did not agree with Mr. Hunting. While granting that in many cases, especially in young horses, the accident would not occur after the animal's paces had become settled and his muscular tone established, these were cases very commonly met with in which no modification of the shoe nor any amount of muscular vigor would prevent "striking" and the speaker felt sure that, making every allowance for the theory Mr. Hunting had advanced, there was scarcely a member in the room, or out of it, who had not some experience with horses that would "brush" in one form of shoe and not in another. As to the raising of one side of the horse's foot by a thicker webbed shoe, he regarded this as essentially a dangerous practice, and he agreed with Mr. Hunting, whom he took to say that anything which in this way interfered with the normal plane of the horse's limb was to be avoided. The essayist had brought to the notice of meeting some very disingenious theories as to how the good effect of weighted shoes on pacers was brought about. These were mainly attributed to our clever American cousins, some of whom believed that the effect was mental. The speaker looked for a more material explanation, the effect of exercise and increased exertion on muscles. Time would not permit of reference to many interesting points in Mr. Hunting's address on his favorite subject, he would conclude as he commenced his remarks by expressing his thanks to Mr. Hunting for his entertainment and what he had done to simplify the subject of horse-shoeing.

Professor McCall regretted that he had not heard the whole of Mr. Hunting's paper, but what he did hear left the impression on his mind that Mr. Hunting had formed the opinion that no appliances in the shape of stays or shoes would alter the method of an animal's progression, or prevent him from brushing or injuring his limbs. Professor Penberthy had also told them that the effect of shoeing in order to affect or alter the horse's action, if defective, must necessarily be injurious, as it altered the natural plane of the limb. Now if he had apprehended these gentlemen aright his (Professor McCall's) experience and practice compelled him to differ from them both. He entertained the opinion, founded on practice, that by paying strict attention to the growth and shape of the horse's feet for the first two years of his life very marked defects in the shape of the limbs and also in the position they assumed in progression could be overcome. The bulk of horses, he said, naturally tended to walk upon the outside of the wall, both behind and in front. Some few the reverse, viz., on the inside of the wall, while a few walked almost level. But let the hoofs grow untouched by the rasp or knife, and the tendency, in whatever direction it was, became more pronounced, because from friction and attrition the wall becomes worn away, the toes look in and the fetlocks look out. Let this state of matters continue and in time the knees will open in front and the hocks behind, and in this form the animal will progress. On the other hand, if from the first month of the animal's birth, and monthly thereafter, we rasp down the inside heel, keeping it as low as possible, and, if the tendency to walk on the outside wall is not very marked, the defect will disappear as completely as if it had never existed. Should the defect however be very pronounced it will be necessary to place a half shoe on the outside wall with a thick web, or it may require a heel, and if this appliance and time does not remedy the malposition it will have most materially altered the position for the better. He admitted that it was difficult by shoeing or other methods to alter a mal-position in an adult subject, but in a young growing horse it was remarkable to what an extent both the position of the limb, and the action of the animal as a result, could be improved. Regarding brushing Prof. McCall said it might amount to much or imply very little. Given a horse wide behind he seldom brushed, given a horse close of his hocks and he invariably brushed when first broken into harness work, but whether shod to prevent brushing or not in a short time (being used to his work and becoming firmer on his limbs) he ceased to

* It is quite impossible to correct this report and I can only regret having puzzled the reporter.—W. H.

brush. A horse sometimes brushed from debility and fatigue, and another class of animals brushed because the position of the limb was a defective one, and the defect had not been attended to in his youth. Such horses were difficult to shoe and a study, but by paying particular attention to how they carried the limb in progression and the point they struck, one smith could prevent it while others less expert could not. There were other points of great importance raised by Mr. Hunting in his paper, but as there were present many gentlmen who desired to be heard, he would allow them to remain untouched.

Professor DEWAR thought the President was making a mistake in calling on all the visitors from the other side of the water to speak in succession. It was unfair that they should monopolise all the time left for discussion seeing that we were all anxious to hear the opinions of those practical veterinary surgeons belonging to Ireland who have had a large experience in connection with shoeing forges. He hoped time would be found for them to express their opinions. He would therefore only refer to one or to points. Before doing so he would advise them not to take Mr. Hunting too seriously in some of the theories he has apparently been advancing them, don't think he believes in them all himself. Mr. Hunting is a grand hand at arguing from a point of view which he himself does not believe in, simply for the sake of raising a good discussion and having a question looked at in all its bearings. He differed from Mr. Hunting on the question of concussion. Notwithstanding the beautiful elasticity of the foot and pastern manifested by the well bred horse in action he believed that concussion was often responsible for causing lameness. Splint, *e.g.*, was only common in roadsters, in horses doing fast work on macadamized roads and paved streets. In the racehorse and hunter it was not common. True we found splints in unbroken colts running in the fields, but these were of a different character, seldom caused lameness, and usually disappeared with years. Concussion, therefore, was mainly responsible for splints and splint lameness. Referring to Professor McCall's remarks he must support him with regard to the possibility of often being able to remedy congenital defects by attending to the shoeing. It depended a great deal on the nature and amount of deformity present. But he had been successful in bringing colts practically straight on their legs, which the owners had been inclined to destroy as useless after being foaled. He could not believe with Mr. Hunting that when a horse's toes were turned out or in the deformity was always due to a twist of the whole limb from the elbows downwards. In some cases it was only from the knees, in others from the fetlocks, while in cases due to neglect of the feet it was frequently only from the pasterns. From the fetlock, *e.g.*, he had no doubt it was generally due to an unequal development of the trochlea of the metacarpus and phalanges. In growing colts this can usually be remedied by shoeing so as to bring the greater part of the weight to bear on the convex side of the limb, and of course correspondently relieving the other. Congenital deformities of the limbs can often be remedied while the animal is growing by careful attention to the shoeing. I must curtail my remarks to allow us to benefit by hearing the opinions of those practical veterinarians I have already referred to.

Mr. MCKENNY, referring to the question of the existence of expansion and contraction in the horse's foot, said that this was a subject upon which opinions very much conflict, some positively asserting that the foot does expand whereas others state that the reverse takes place. Perhaps this difference of opinion occurs from the alteration of the circumstances and position of the foot at the time of measurement and the means adopted to ascertain the facts, or to the theories propounded being based on hypothesis and not on facts. Probably both views are right, that is, that, under certain circumstances, the foot expands and, under others, contracts. As regards concussion, nature had so formed the horse, that ample and beautiful means are afforded by the structure of the feet and legs to prevent, absorb, or distribute the necessarily very great concussion which accompanies the rapid movement of the horse. The composition of the structure and formation of the wall and sole of the foot indicates that nature intended that some movement could take place, as the sole is an arch having the wall for its abutments and as these parts consist of tissue more yielding than bone and more rigid than tendons, it is evident some slight alteration—expansion or contraction of the wall with descension or ascension of the sole—can, and probably does take place, and again, the position of the frog wedge-shaped and elastic—attached superiorily to the comparatively rigid sole and free at its lower surface allowing of free expansion, tends to prove that the wall and sole of a healthy foot is so constructed as to fulfil all the foregoing enumerated movements, ascension of the sole accompanying contraction and descension of the sole, expansion of the wall. We have also to consider the functions of the cartilages and the position of the bones, especially those of the fetlock, which permit of considerable movement, of such a character that, when the bones, muscles, ligaments and cartilages are working in harmony, the entire constitutes a wonderful piece of mechanism, calculated to neutralise an enormous amount of concussion which would otherwise have such manifestly injurious results, by reason of the continuous and rapid hammering of the feet in quick motion, having regard to the weight the limbs are called upon to sustain. Of course, this, to a considerable extent, may be considered an extreme view, as we are all aware that, the moment the foot touches the ground, certain muscles of progression are thrown out of action while others are brought into immediate play, but all the time the faster the speed at which a horse is travelling the greater is the force with which the feet strike the ground, as is exemplified by the result of the fast and slow work observable on the feet on the feet and legs of horses; also on a clay or cinder track the difference of the depth of impression left by the feet, in quick and slow motion, is very noticeable. With reference to the shoeing of horses he was of opinion much could be done to alter a horse's action; heavy shoes cause a horse to lift his feet higher, and the alteration of the weight from one portion of the shoe to another and change of form of shoe, to his mind, alters the action. When extra weight is placed on either side of the toe of the shoe, the toe itself is turned towards that side on which this additional weight is placed. Another effect which weight has when confined to the toe, is to cause the horse in fast progression to extend the foot forward to a much greater extent than without it, and he also found that if the outer heel of the shoe be turned out (donkeyed), the animal places the foot on the ground in an outward direction. He could assign reasons why the foregoing takes place, but it will suffice to state that they are practical everyday facts, well known and established by the owners of trotting horses, especially the Americans, and they are no fools. No doubt the theories propounded in some of their books on the subject are very far from being correct, but the fact remains they have succeeded in obtaining a tremendous rate of speed with their horses which could not be gained without particular attention being paid to the form and weight of the shoes. Each shoe of a set of shoes often has to be made quite differently in form and weight, and the least alteration, to use a trotting man's phraseology, balances or unbalances the horse and makes a wonderfully marked difference in his gait and speed. He freely admitted the matter is one for practical testing, and no amount of experience will ensure that on the first, second or third shoeing, the desired object will be attained. As regards brushing

and speedy cutting, the prevention of these defects of action is of much importance and it may, under circumstances of doubt as to their causation, be convenient to attribute their occurrence to weak condition, which no doubt is a very frequent cause, but to state that is always the cause is not correct. All of us who keep forges have had the painful experience of frequent complaints on this score from our clients if we happen to have a careless horse shoer, which unfortunately is too often the case ; say, the horse is shod to-day, brushes immediately afterwards, is sent back to the forge, the shoe is altered or perhaps he is re-shod and at once the brushing ceases, now in such a case it will be absurd to state that the brushing was due to the weak condition of the horse. In the generality of cases, the inside of the toe is the part which strikes the fetlock and it will be noticed that the more the toe is turned outwards the more difficult it is to prevent the animal from brushing, and when the horse is standing, and that the toe takes this outward direction, it will be observed that the fetlocks invariably are close together. It is usual in such cases to rasp away, as much as possible, that portion of the foot which strikes the fetlock, but the effect of this is contrary to the desired object unless the shoe is thickened on the inside. The explanation of the foregoing is, that the turned-out toe not only permits the fetlock to come further in than usual, but the natural resisting force is weakened, and, as a consequence, the fetlock being out of the line of resistance is forced inwards, for a like reason that a pillar will lean to one side if the foundation on that side has been removed, and, of course, the more it sags the greater its incline. It is therefore obvious that the more we cut the inside of the foot away the closer the fetlocks come together, thus increasing the liability to brushing ; but when the shoe is made heavy on the inside, the heel wedge shaped, and that the hoof is not cut away on that side nor left full on the outside, and that the shoe is made thin and light on the outside, the adoption of this method is a corrective to brushing. In my experience, it is the manner in which the foot is placed on the ground, its position there, and the way it is removed or lifted that constitute the most important points to be attended to in shoeing horses for the prevention of brushing.

Mr. M'GUINNESS (Dublin) having expressed the pleasure which he had derived from listening to Mr. Hunting's valuable and interesting paper, went on to say that with regard to young horses a great deal could be effected towards remedying evils of conformation either in the feet themselves or in the limbs by judicious shoeing. With regard to the weighting of trotting horses he pointed out that in all probability the system had the effect of developing certain muscles or groups of muscles, and as the Americans had devoted a great deal of time and attention to the subject he thought that we should be careful before we condemned a system about which we know so little. As to brushing, while admitting that it was frequently the result of debility, still he asked was it not a fact well known to everyone who had kept a forge that a horse which had not been in the habit of brushing very often did so after being shod by a new hand, and the evil as quickly removed if the horse were re-shod by the farrier who had been in the habit of shoeing him, a result which could hardly be attributed to a change in his constitutional condition.

Mr. WATSON (Boyle) said if he might presume to follow so many learned professors he would like to say a word on this subject with which he was comparatively familiar. He much preferred the "facts" of Mr. Hunting's book to the "theories" of his essay. He would not discuss "contraction" and "concussion" except to say that these were largely produced by the adoption of calkins. Calkins might be desirable and necessary on the hind feet of draught horses, but the front feet should be shod level and the frogs allowed to exercise their natural functions. With regard to "brushing" he took exception to the theory that it was due to weakness and incurable. Want of condition might be a contributory cause but not only was "brushing" the outcome of erratic shoeing but was entirely preventable. The action of the horse must be watched and the indications of nature followed. Almost invariably a brushing horse will walk on the outside web of the shoe in his endeavour to keep his pasterns apart. Here you have the remedy indicated. Lower the outside of the foot and deepen the inside web of the shoe if you will, but assist him to walk on a level plane and brushing ceases. Before sitting down he congratulated the Association and Mr. Hunting for bringing about such a pleasant meeting and desired him to use his influence in bringing the N.V.A. on a visit to Ireland where he might predict for it a hearty *cead mille failthe.* (Applause.)

Mr. HUNTING, in reply, said he must first assure Prof. Dewar that he was quite serious in everything he said. He might perhaps adopt with advantage a more serious and grave demeanour, but he deserved credit for only one aim—gaining the truth. He had lightly dealt with a lot of theories not so much to support one and decry another as to obtain evidence from others as to the basis upon which they rested. Prof. Dewar agreed with Prof. McCall that it was possible to influence the action and conformation of the limb by attending to the feet. He did not dispute the fact in foals when the tissues were soft and plastic. It was the older horses he had in his eye when speaking, and especially the attempts made to stop "cutting" and "brushing." He still felt very sceptical about some theories and would be glad to see instituted a set of experiments to determine what really could be effected by shoes and shoeing on action.

On the motion of Mr. McKenny, a vote of thanks was passed to Mr. Hunting.

Professor WILLIAMS moved, and Professor Dewar seconded, a vote of thanks to Mr. Lambert for presiding.

The company then adjourned for supper, and after a very pleasant evening had been spent, separated amidst mutual expressions of good-will and hopes of as successful a re-union in the near future.

EXTRACTS AND NOTES.

WHAT DO WE UNDERSTAND BY ECZEMA?

In the Section of Dermatology at the recent meeting of the British Medical Association Mr. MALCOLM MORRIS opened a discussion on the nature of eczema, he said, was a subject which had engaged the attention of dermatologists ever since the time of Willan; but although a great deal was known about eczema they were not agreed as to what it really was. Was it a special process following certain laws in its evolution and manifesting itself by definite characters, or was it a clinical expression denoting results of several forms of morbid action? His own conception of eczema was expressed in the following definition, which he had given five years ago: "A catarrhal inflammation of the skin originating without visible external irritation and characterised in some stages of its evolution by serous exudation." The terms of this definition excluded all forms of dermatitis—i.e., inflammation of the skin produced by chemical and mechanical irritants. Lesions due to such causes might be exactly like those of genuine eczema, but there was the fundamental difference that they appeared in response to a visible cause and began to disappear when the cause ceased to operate. On the other hand, true eczema arose without obvious cause; the skin might be healthy or there might be some pre-existing abnormal condition. The older dermatologists, follow-

ing Bateman, regarded eczema as a vesicular eruption caused by au external irritation, "by the rays of the sun or the irritation of various substances applied to the skin, or by mercury taken internally, though it was found associated with gastro-intestinal inflammation without any mercurial preparation having been taken." Bazin, whose influence long dominated the French school, saw in eczema an expression of various constitutional conditions such as scrofula, arthritism, or herpetism. In that way various forms of eczema were easily accounted for by their dependence on some real or hypothetical dyscrasia. This constitutional theory gave place in turn to Hebra's doctrine that eczema was nothing more than a superficial inflammation of the skin due to some external cause—i.e., the effect of a local irritation. At the present time, under the influence of Unna, many dermatologists are coming to look upon eczema as a parasitic disease; and another view which had many supporters in the present day was that it had its origin in some disordered action of the nervous system. There were facts in favour of each of these agencies, and Mr. Morris himself was inclined to the view that in many, if not all, cases they were combined—a view which seemed to explain the facts better than any other which had hitherto been suggested. In considering the parasitic view he referred to the researches of Unna, who had found parasites which he regarded as specific both in vesicular and in seborrhœic eczema, namely, cocci, which were very often found in clusters resembling mulberries, and therefore he proposed the name morococci for these micro-organisms. They could be found in the cellular protoplasm of the elements of the vesicle. In seborrhœic eczema Unna had found morococci, "flaschen" bacilli and other bacilli of indeterminate character in the crusts aud scales. Unna had cultivated the morococcus and by inoculation of the cultures had succeeded in producing acute eczema. Every practitioner was familiar with the auto-inoculability or transmissibility of the disease from one part of the patient's skin to another, and there was also clinical evidence of its contagiousness. Jameson, for instance, had pointed out that in nurses who carry children affected with eczema of the nates the disease was often inoculated in the arms, and instances of the transmission of seborrhœic eczema by contagion have also been recorded. In reference to seborrhæic eczema Leredde, though fully supporting the parasitic theory, held that Unna's description of it was too comprehensive, including as it did seborrhœa, numerous lesions of the pityriasis type, and other lesions called by Unna "yellow spots," which neither on bacteriological nor histological grounds should be classed as eczema. Stripped of these extraneous elements seborrhœic eczema was, in the opinion of Leredde, still a parasitic disease, but not a pure eczema. Leredde believed this malady to be a mixed infection due to the association of a variety of microbes, such as those of fatty seborrhœa, of pityriasis of the scalp, and of certain micro-organisms which were agents in the production of acne, together with a morococcus which was the parasite of eczema. Nevertheless, in view of the facts mentioned Mr. Morris held it proved that parasites were capable of producing eczema, even if it were not actually a parasitic disease. The fact that the most effective remedies against it were of the parasiticide class was of itself a strong argument in favour of that view, but whether the morococcus or some other parasite or combination of parasites was the sole cause of the mischief was another question. In any case the parasite must have a suitable soil to grow in; it could not strike root on a perfectly normal skin. In fact, therefore, predisposing conditions played a very important part in its production, amongst which might be mentioned certain hard, dry, ichthyosis-like conditions of the integument, the textural changes of old age, previous affections of the skin of long standing (notably the prurigo of Hebra), seborrhœa, and varicose veins, etc., and other causes of inflammatory conditions of the skin, such as irritation caused by certain secretions. Finally, there was undoubtedly in many cases a nervous factor in the causation, a nervous condition which seemed to lessen the resistance of the integument, instances of which were mentioned. This view was also supported by the value in treatment of nerve sedatives such as opium. The statement was generally made by writers on dermatology that eczema was hereditary. This was only true in the sense that phthisis was hereditary, and if the disease existed in one member of a family the others would be favourably placed for receiving infection. As regarded the relation of the general health to eczema the eruption was still regarded by many people as a kind of safety-valve, and patients were often warned that they must bear their skin trouble with such fortitude as they could lest a worse disease befall them in the shape of some other formidable internal disorder. Mr. Morris believed this fear to be absolutely without foundation, though he was prepared to admit that gout, diabetes, Bright's disease, and chronic dyspepsia might be aggravating circumstances, but they were nothing more. They make a case more troublesome to treat but do not cause the disease, or even modify its manifestations in any way which he could trace. In reply to the question what they were to understand by eczema, broadly his reply was as follows: it was a disease the chief clinical character of which was the infinite variety of lesion by which it displayed itself. It originated in the action of parasites on a skin the resistance of which had been enfeebled by pre-existing disease or structural abnormality or by disordered innervation, sometimes made more intractable by gout and other constitutional states, but having no direct relation to the general health.

Dr. Colcott Fox (London) said that since the promulgation of Unna's ideas on eczema he had determined to study again the condition known as eczema, unbiased as far as possible by the leanings of his early training. In offering a few observations on the disease in children he said he did so because in them the problem was in a measure free from some of the complications met with in later life. In infants and young children he saw two phases of eczema. The first was the state commonly known as eczema, which began most frequently in infancy on the scalp and descended thence over the face to cover in some instances the greater part of the surface. This eczema was in dry patches at first. Any vesiculation and weeping might possibly be due to the intensity of the process, but most frequently it appeared to be induced by rubbing and scratching. The second phase consisted of dry, reddish areas, with scanty adherent scales separating along the lines of flexion. but these patches might also when irritated take on a vesicular form indistinguishable from the first phase. This was also a descending inflammation, beginning on the face or scalp as a rule, which he used to call seborrhœa, but that was no doubt a bad term. This was the common affection described by Savill as epidemic among chiidren. These phases ran into one another so much that he had constantly the greatest difficulty in separating them. In the next place he could find no cause whatever in the majority of children, for the patients were apparently in excellent health. He did not deny the influence of constitutional disturbance, such as rickets or gastro-intestinal trouble, in increasing the irritation and secondarily spreading and intensifying the inflammation, but the phases of eczema seemed to him to be essentially of local origin. It was possible that the future might disclose varieties caused by various parasites. In studying the disease in adults he was more and more astonished at the number of cases which conformed to the above phases. He did not deny the existence of eczema from constitutional causes, but he seldom met with cases

which seemed likely to have such an origin. There was no confirmation of such a theory derivable from the study of eruptions produced by the ingestion of drugs or the circulation in the blood of various serums, or uræmia. At the same time a constitutional state predisposed to the disease, for in a laundry only one woman might have eczema set up by the soda, and this woman might herself be free for years. The soda only set up eczema under certain conditions. He therefore hardly knew on what grounds these occupation eczemas could be separated from the others. Lastly, he thought it extremely likely that the eczematous type of eruption could be produced under the influence of the nervous system. Chemically and anatomically we knew what an eczematous influence was, but no further conclusions seemed possible until further progress was made with the bacteriology of these affections.—*The Lancet.*

Personal.

The work and travel done, and the knowledge of foreign languages possessed, by Mr. Jno. A. W. Dollar is obtaining marked recognition on the Continent.

He is: "Corresponding member of the Central Veterinary Society of Paris.

Member of the Royal Italian Society of Hygiene.

Corresponding Member of the Royal Spanish Society of Hygiene.

Honorary Member of the Royal Spanish Society of Arts (Veterinary Section).

CORRESPONDENCE

MR. DEANS' OPERATION.

Sir,

I noticed the enclosed paragraph in *The Sporting Chronicle*, in which Mr. Deans' claims the operation as his own invention. The practice of injecting powerful stimulants into faint hearted race horses has been employed by a certain class in the United States for several years.

The delay at the post and danger arising from the effects of the injection of these stimulants caused the matter to be taken up by the racing officials and S.P.C.A. I have seen horses injected with these heart stimulants running away and completing 3 miles before being pulled up—in one instance the animal fell dead, on post-mortem revealing rupture of the heart.

Owing to the the railings being higher around the American tracks than is generally the case in England, the horse hss not the same opportunity of bolting into the crowd. Some horses after an injection become frantic and beyond the control of any jockey. Excessive use of such stimulants, especially cocaine (one of the principal drugs used for this purpose) is liable to seriously affect the subsequent general health of the animal, especially in the case of stallions where it is liable to produce paralytic symptoms.—Yours, etc.,

THOS. BOWHILL, F.R.C.V.S.

"Mr. James G. Deans, M.R.C.V.S., of Bishop Auckland, writes under Thursday's date to us:—"I see in your issue to-day a remark that it was surprising Aliment, the property of Mr. Dyson, and trained by Tinsley, should have been supported for so much money when she had run eight times previously without earning a single winning bracket. The reason was that, at the request of the owner, I went to Pontefract and injected her hypodermically with a powerful heart stimulant, which has the effect of making a shifty or timid animal try. As her connections had often tried her good enough, at home, they knew that if the operation was a success she could win. The operation is my own invention, and has only been tried on three occasions in public—viz., on Sporran at Shincliffe, and Cartmel and Aliment at Pontefract, and on every occasion the animal has won."

DECOLORISED IODINE.

Sir,

I have been expecting Mr. Deans or some one else to have answered Mr. Donald's enquiry in *The Record* for July 30th.

As no one has undertaken the task, and as Mr. Donald has written a second letter in last week's issue using rather strong language, pardon me if I make a feeble attempt to answer it.

Decolorised iodine is no new drug, it is often called for and dispensed. The following formula for its preparation is from the Pharmacopœia 1888 and 1898:

Tincture Iodi Decolorata B.P.C.

Iodine	250 grains.
Rectified Spirit	5½ ounces.

Dissolve with gentle heat and add, when cold,

Strong Solution of Ammonia	10 drachms.

Keep the mixture in a warm place until decolorised, after which dilute it with (about 2 to 1 is required) rectified spirit q.s. to form 1 pint. Mix. Undiluted it may be prescribed as *tinctura iodi discolorata fortior.*

There are other methods for preparing it, but neither of the methods improve the preparation but the contra, its only recommendation being that it leaves no stain on the skin when applied externally. Such being the case I am at a loss to know why Mr. Deans prescribes it in his formula, and should be glad if he will kindly enlighten us through the pages of your valuable *Record.*—Yours truly,

J. MCGAVIN, M.R.C.V.S.

MODERN SURGERY.

To the Editor of *The Puddleton Mercury.*

Sir,

Two notes in your last issue suggest to me the great saving which might be effected by owners of stock if they only knew what modern surgery was able to do for them.

You report that Mr. Wildoats' beautiful hack was disqualified at the Puddleton show for a shocking exhibition of vice. You will be interested to know that she has since taken 1st prize at Little Beddleham, and was at once sold to a nervous lady. The fact is I was employed by the owner, and by a quite new and original process overcame the mare's proclivities for a time sufficiently long to enable her to enter and leave the ring in a decent manner.

Your other report refers to the disqualification of a dog on account of his ears. This dog now carries his ears to perfection as the result of a new and original operation performed by me. Stockowners too often sacrifice animals wanting in some special feature, or suffering from some infirmity. I make a specialité of these cases, and may say without boasting that I am able effectually to remove or disguise many conditions which render animals unsound or unsafe for special purposes.—Yours obediently,

T. WALKER-BOSS, M.R.C.V.S.

[We publish this letter with some misgiving. It seems to have been intended for a local newspaper, but perhaps it will be more instructive and suggestive to our readers than to those of the lay press.—ED.].

COMMUNICATIONS, BOOKS, AND PAPERS RECEIVED:—Messrs. J. McKenny, A. L. Farrant, Jno. A. W. Dollar, T. Bowhill, W. Grieve, "Old Times."